

# PATENT ABSTRACTS OF JAPAN

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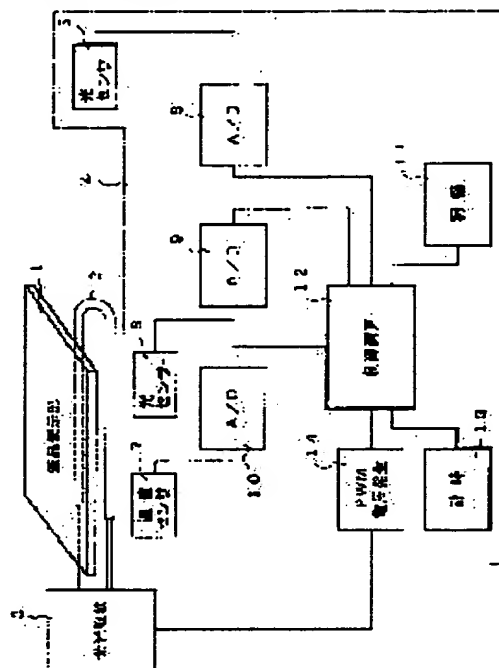
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## (54) LUMINANCE CONTROLLER FOR LIQUID CRYSTAL DISPLAY DEVICE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a liquid crystal display device luminance controller to be applied to a liquid crystal display device using a cold cathod discharge tube for a back light.

**SOLUTION:** This controller is composed of a liquid crystal display part 1, a cold cathod discharge tube 2 for illuminating the back of the display part 1, a control adjusting means 4 for generating pulse width modulation voltage, and a light emission driving means 3 for emitting the tube 2 by luminance corresponding to the pulse width modulation voltage. The means 4 changes the duty ratio of the pulse width modulation voltage correspondingly to each of peripheral brightness, the luminance of the tube 2 and temperature near the tube 2 and controls the light emission luminance of the tube 2 so that the brightness of the display surface of the display part 1 is always held at an optimum state. At the time of controlling the luminance of emitted light, the compensation of a detected output due to the deterioration of an optical sensor 5 for detecting peripheral brightness and an optical sensor 6 for detecting the luminance of the tube 2 and the compensation of the luminance of emitted light due to the deterioration of the tube 2 can be also added to control.



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